

**REMARKS**

Claims 12-31 are pending in this application.

By this Amendment, claims 12, 13 and 28-31 are amended for clarity and for form, and not for substantial reasons related to patentability. The specification is amended to add a cross-reference paragraph at the beginning of the specification, as the Examiner requested. No new matter is added. Reconsideration of the application is respectfully requested.

The Office Action objects to the specification. This objection is respectfully traversed. Applicants are not required to insert a cross-reference paragraph at the beginning of the specification, as long as the reference is included in the Declaration or Application Data Sheet, which is the case in this application. However, to expedite allowance, the specification is amended to add the cross-reference paragraph at the beginning of the specification, as the Examiner requested. Accordingly, withdrawal of the objection to the specification is respectfully requested.

The Office Action objects to claims 28-31 for informalities. Claims 28-31 are amended responsive to this objection. Accordingly, withdrawal of the objection to claims 28-31 is respectfully requested.

The Office Action rejects claims 12 and 13 under 35 U.S.C. §112, second paragraph. Claims 12 and 13 are amended for proper antecedent basis. Accordingly, withdrawal of the rejection of claims 12 and 13 under 35 U.S.C. §112, second paragraph is respectfully requested.

The Office Action rejects claims 12-31 under 35 U.S.C. §103(a) over U.S. Patent Publication No. 2003/0143370 to Noguchi in view of U.S. Patent No. 6,440,185 to Nagata and U.S. Patent No. 3,773,573 to Slykhouse, as allegedly evidenced by the "printouts" regarding the Matsumoto Microsphere F-series product data. This rejection is respectfully traversed.

Independent claim 12 recites that "as the foamed resin, there is used a material in which the weight of a gas included in the foamed resin stored at 40°C for 4 weeks is 8% or more of the weight of the foamed resin." Independent claim 13 recites that "as the foamed resin, there is used a material in which a weight decrease ratio of a gas included in the foamed resin stored at 40°C for 4 weeks is 30% or less with respect to the weight of the gas before stored."

The Office Action admits that Noguchi does not disclose these quoted features. However, the Office Action asserts that Nagata cures the deficiencies of Noguchi, especially in view of the printouts.

In particular, the Office Action asserts that Nagata discloses a foamed resin, citing Nagata at col. 5, lines 30-31. The Office Action further asserts that Nagata's foamed resin contains a C5 gas having a weight between 10 to 15 %, citing Nagata at col. 6, lines 35-48. In this context, the Office Action appears to be asserting that it is Nagata's C5 gas that discloses the gas recited in claims 12 and 13.

However, the Office Action further asserts that Nagata uses the product of Matsumoto Microsphere F-series as the foamed resin, citing Nagata at col. 6, line 54. In this regard, the Office Action asserts that the Matsumoto product has storage stability up to 40°C. In this context, it appears that the Office Action is asserting that it is Matsumoto's product that discloses the gas recited in claims 12 and 13.

However, Nagata's C5 gas is an element separate from Nagata's foamed resin. The Patent Office appears to be confusing the Nagata's C5 gas with Nagata's foamed resin, and randomly selects features of the C5 gas and features of the foamed resin for a combination to read on the features of the gas recited in claims 12 and 13. Nagata's C5 gas and foamed resin are separately discussed below.

**I. Nagata's C5 Gas**

If Nagata's C5 gas is asserted in the Office Action to disclose the gas recited in claims 12 and 13, the rejection of claims 12 and 13 is unreasonable, because there is no 40°C feature associated with the C5 gas. Especially, the asserted C5 gas is generated by heating the low-boiling hydrocarbon liquid enclosed within an organic hollow material by heating. At a temperature of 40°C, there is no heating. Thus, at 40°C, the asserted C5 gas will return to the liquid form, and will not stay in gas form.

Also, the 10-15 wt% is related to the low-boiling hydrocarbon liquid, not necessarily associated with the gas generated by heating. Thus, Nagata only can be considered as disclosing a 10-15 wt% of liquid. Nagata cannot be considered as disclosing an 8 wt% of gas.

**II. Nagata's Foamed Resin**

If Nagata's foamed resin is asserted in the Office Action as disclosing the gas recited in claims 12 and 13, the rejection of claims 12 and 13 is also unreasonable. In particular, the Office Action relies on the printouts of Matsumoto's product data for disclosing the 40°C feature. However, the printouts disclose that Matsumoto's product will gasify under rising temperature. (See the paragraph under the title "What is Microcapsule?" on page 2 of the Examiner's provided printouts.) The printouts also disclose that Matsumoto's product must be stored indoors where temperature does not exceed 40°C so that the product maintains its stability. (See the second paragraph between the two diagrams on page 3 of the printouts.) Thus, the 40°C is disclosed for Matsumoto's product to stay stable, not a temperature for Matsumoto's product to gasify. Therefore, the 40°C temperature, as disclosed in the printouts, is for Matsumoto's product to stay in solid state, not in gas state.

In view of the above, neither Nagata's C5 gas nor Nagata's foamed resin discloses the features of the gas recited in claims 12 and 13. Also, any attempted combination of features

of the C5 gas and the foamed resin would be unreasonable. Thus, Nagata does not cure the deficiencies of Noguchi.

**III. The Asserted Combination of References is Unreasonable**

The present application is directed to solving the problem that cracks are generated in the ceramic structure during the firing when a large amount of combustible powder is mixed with the ceramic material, and that the formed body is deformed during the foaming of the organic agent. It is proposed to use, as the foamed resin, a material in which the weight of a gas included in the foamed resin stored at 40°C for 4 weeks is 8% or more of the weight of the foamed resin.

In contrast, in the applied references, there is no description either suggesting or implying the technical problems to be solved by the present application. Therefore, there is no reason for any ordinary artisan to combine the teachings of the applied references to lead him to the theme of the present application.

**IV. Conclusion**

For at least the above reasons, the applied references do not disclose or render obvious the subject matter recited in claims 12 and 13, and claims 14-31 depending therefrom. Also, one of ordinary skill would not have had any reason to combine the teachings of the references, as asserted in the Office Action. Accordingly, withdrawal of the rejection of claims 12-31 under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 12-31 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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